

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Previously Presented) A system for performing a medical procedure, comprising:

a sensor to sense a state of a cardiac tissue;

an indicator to indicate the state of the cardiac tissue and to indicate that an escape beat is imminent;

a nerve stimulator in communication with the sensor to inhibit beating of a heart when an escape beat is imminent; and

a cardiac stimulator in communication with the sensor to stimulate beating of a heart to ensure adequate blood flow;

the nerve stimulator being off whenever the cardiac stimulator is on and the cardiac stimulator being off whenever the nerve stimulator is on.

2. (Original) The system of claim 1 further comprising:

a cardiac stimulator in communication with the sensor to stimulate beating of a heart when the state indicated by the indicator is a contracting state.

3. (Original) The system of claim 1 further comprising:

a nerve stimulator in communication with the sensor to inhibit beating of a heart when the state indicated by the indicator is a non-contracting state.

4. (Original) The system of claim 1 further comprising:

drug delivery means for delivering at least one drug during the medical procedure.

5. (Original) The system of claim 4 wherein the drug delivery means is selected from the group consisting of:

a spray, a cream, an ointment, a medicament, a pill, a patch, a catheter, a cannula, a needle and syringe, a pump, and an iontophoretic drug delivery device.

6. (Original) The system of claim 4 wherein the drug is selected from the group consisting of:

a beta-blocker, a cholinergic agent, a cholinesterase inhibitor, a calcium channel blocker, a sodium channel blocker, a potassium channel agent, adenosine, an adenosine receptor agonist, an adenosine deaminase inhibitor, dipyridamole, a monoamine oxidase inhibitor, digoxin, digitalis, lignocaine, a bradykinin agent, a serotonergic agonist, an antiarrhythmic agent, a cardiac glycoside, a local anesthetic, atropine, a calcium solution, an agent that promotes heart rate, an agent that promotes heart contractions, dopamine, a catecholamine, an inotrope glucagon, a hormone, forskolin, epinephrine, norepinephrine, thyroid hormone, a phosphodiesterase inhibitor, prostacyclin, prostaglandin and a methylxanthine.

7. (Original) The system of claim 4 wherein the drug is naturally occurring.

8. (Original) The system of claim 4 wherein the drug is chemically synthesized.

9. (Original) The system of claim 3 wherein the nerve stimulator stimulates a nerve selected from the group consisting of:

a vagal nerve, a carotid sinus nerve, a fat pad.

10. (Original) The system of claim 3 wherein the nerve stimulator stops stimulation automatically when the state indicated by the indicator is a contracting state.

11. (Original) The system of claim 1 wherein the sensor is selected from the group consisting of:

an electrical sensor, a chemical sensor, an electromagnetic interference sensor, an electrochemical sensor, a pressure sensor, a sound wave sensor, a magnetic sensor, an ultraviolet sensor, a visible light sensor, an infrared sensor, a radiation sensor, a flow sensor, a temperature sensor, a gas sensor, an optical sensor, a pH sensor, a potentiometric sensor, a fluorescence sensor, a depolarization sensor and a biosensor.

12. (Original) The system of claim 1 wherein the sensor comprises at least one electrode.

13. (Original) The system of claim 12 wherein the electrode is selected from the group consisting of:

cardiac stimulation electrodes, clip electrodes, needle electrodes, probe electrodes, pacing electrodes, epicardial electrodes, patch electrodes, intravascular electrodes, balloon-type electrodes, basket-type electrodes, tape-type electrodes, umbrella-type electrodes, suction-type electrodes, endotracheal electrodes, endoesophageal electrodes, transcutaneous electrodes, intracutaneous electrodes, screw-type electrodes, barb-type electrodes, bipolar electrodes, monopolar electrodes, metal electrodes, wire electrodes and cuff electrodes.

14. (Original) The system of claim 2 wherein the cardiac stimulator comprises at least one electrode.

15. (Original) The system of claim 14 wherein the electrode is selected from the group consisting of:

cardiac stimulation electrodes, clip electrodes, needle electrodes, probe electrodes, pacing electrodes, epicardial electrodes, patch electrodes, intravascular electrodes, balloon-type electrodes, basket-type electrodes, tape-type electrodes, umbrella-type electrodes, suction-type electrodes, endotracheal electrodes, endoesophageal electrodes, transcutaneous electrodes,

intracutaneous electrodes, screw-type electrodes, barb-type electrodes, bipolar electrodes, monopolar electrodes, metal electrodes, wire electrodes and cuff electrodes.

16. (Original) The system of claim 2 wherein the sensor and the cardiac stimulator are the same.

17. (Original) The system of claim 3 wherein the nerve stimulator comprises at least one electrode.

18. (Original) The system of claim 17 wherein the electrode is selected from the group consisting of:

nerve stimulation electrodes, endotracheal electrodes, endoesophageal electrodes, intravascular electrodes, transcutaneous electrodes, intracutaneous electrodes, balloon-type electrodes, basket-type electrodes, umbrella-type electrodes, tape-type electrodes, suction-type electrodes, screw-type electrodes, barb-type electrodes, bipolar electrodes, monopolar electrodes, metal electrodes, wire electrodes, patch electrodes, cuff electrodes, clip electrodes, needle electrodes and probe electrodes.

19. (Original) The system of claim 1 further comprising a breathing regulator.

20. (Original) The system of claim 19 wherein the breathing regulator stimulates a phrenic nerve.

21. (Original) The system of claim 19 wherein the breathing regulator controls a respirator.

22. (Original) The system of claim 19 wherein the breathing regulator comprises at least one electrode.

23. (Original) The system of claim 22 wherein the electrode is selected from the group consisting of:

nerve stimulation electrodes, endotracheal electrodes, endoesophageal electrodes, intravascular electrodes, transcutaneous electrodes, intracutaneous electrodes, balloon-type electrodes, basket-type electrodes, umbrella-type electrodes, suction-type electrodes, screw-type electrodes, tape-type electrodes, barb-type electrodes, bipolar electrodes, monopolar electrodes, metal electrodes, wire electrodes, patch electrodes, cuff electrodes, clip electrodes, needle electrodes and probe electrodes.

24. (Original) The system of claim 1 wherein the medical procedure is selected from the group consisting of:

a surgical procedure, a non-surgical procedure, a fluoroscopic procedure, a cardiac procedure, a vascular procedure, a neurosurgical procedure, an electrophysiology procedure, a diagnostic procedure, a therapeutic procedure, an ablation procedure, an endovascular procedure, a liver procedure, a spleen procedure, a pulmonary procedure, an aneurysm repair, an imaging procedure, a CAT scan procedure, a MRI procedure, a pharmacological therapy, a drug delivery procedure, a biological delivery procedure, a genetic therapy, a cellular therapy, a cancer therapy, a radiation therapy, a transplantation procedure, a coronary angioplasty procedure, a stent delivery procedure, an atherectomy procedure, a procedure that requires precise control of cardiac motion, a procedure that requires precise control of bleeding, a non-invasive procedure, a minimally invasive procedure, an invasive procedure, a port-access procedure, an endoscopic procedure, a sternotomy procedure, a thoracotomy procedure and a robotic procedure.

Claims 25-40 (Cancelled).